ABSTRACT

A gas generation system includes a reformer for producing a hydrogen-containing reformate gas using raw materials, at least a first of the raw materials containing carbon and hydrogen, a separator device configured to selectively separate the hydrogen-containing reformate gas into hydrogen and a residual gas, and a recirculation system. The recirculation system recirculates an amount of the residual gas from a first location downstream of the separator device to a second location upstream from the separator device. The gas generation system may be used to produce a hydrogen-containing gas from liquid hydrocarbons, such as gasoline or diesel oil, for operating a fuel cell. The fuel cell may be part of a drive device or of an auxiliary power unit, in particular in a motor vehicle.